

Environmental Protection Agency

Pt. 63, Subpt. G, Table 32

Fitting type and construction details	Loss factors ^b			Typical number of fittings, N _T
	K _{Fa} (lb-mole/yr)	K _{Fb} (lb-mole/[mi/hr] ^m -yr)	m (dimensionless)	
Weighted mechanical actuation, ungasketed.	1.2	3.0	1.0	N _{F7} (Table 31). N _{F8} (Table 32 ¹).
Roof drain (3-in-diameter)	0	7.0	^a 1.4	
Open	0.51	0.81	1.0	
90 percent closed				N _{F8} (Table 32 ¹).
Roof leg (3-in-diameter)	1.5	0.20	^c 1.0	
Adjustable, pontoon area	0.25	0.067	^c 1.0	
Adjustable, center area	0.25	0.067	1.0	N _{F8} (Table 32 ¹).
Adjustable, double-deck roofs	0	0	0	
Fixed				
Roof leg (2½-in-diameter)	1.7	0	0	N _{F8} (Table 32 ¹).
Adjustable, pontoon area	0.41	0	0	
Adjustable, center area	0.41	0	0	
Adjustable, double-deck roofs	0	0	0	1 ⁹ .
Fixed				
Rim vent (6-in-diameter)				
Weighted mechanical actuation, gasketed.	0.71	0.10	^c 1.0	
Weighted mechanical actuation, ungasketed.	0.68	1.8	1.0	

^aThe roof fitting loss factors, K_{Fa}, K_{Fb}, and m, may only be used for wind speeds from 2 to 15 miles per hour.

^bUnit abbreviations are as follows: lb = pound; mi = miles; hr = hour; yr = year.

^cIf no specific information is available, this value can be assumed to represent the most common or typical roof fittings currently in use.

^dA slotted guide-pole/sample well is an optional fitting and is not typically used.

^eRoof drains that drain excess rainwater into the product are not used on pontoon floating roofs. They are, however, used on double-deck floating roofs and are typically left open.

^fThe most common roof leg diameter is 3 inches. The loss factors for 2½-inch diameter roof legs are provided for use if this smaller size roof is used on a particular floating roof.

⁹Rim vents are used only with mechanical-shoe primary seals.

TABLE 31 TO SUBPART G OF PART 63—
TYPICAL NUMBER OF VACUUM
BREAKERS, N_{F6} AND ROOF DRAINS, ^A
N_{F7}

Tank diameter D (feet) ^b	No. of vacuum breakers, N _{F6}		No. of roof drains, N _{F7} double-deck roof ^c
	Pontoon roof	Double-deck roof	
50	1	1	1
100	1	1	1
150	2	2	2
200	3	2	3
250	4	3	5
300	5	3	7
350	6	4	^d
400	7	4	^d

^aThis table should not supersede information based on actual tank data.

^bIf the actual diameter is between the diameters listed, the closest diameter listed should be used. If the actual diameter is midway between the diameters listed, the next larger diameter should be used.

^cRoof drains that drain excess rainwater into the product are not used on pontoon floating roofs. They are, however, used on double-deck floating roofs, and are typically left open.

^dFor tanks more than 300 feet in diameter, actual tank data or the manufacturer's recommendations may be needed for the number of roof drains.

TABLE 32 TO SUBPART G OF PART 63—
TYPICAL NUMBER OF ROOF LEGS, ^A
N_{F8}

Tank diameter D (feet) ^b	Pontoon roof		No. of legs on double-deck roof
	No. of pontoon legs	No. of center legs	
30	4	2	6
40	4	4	7
50	6	6	8
60	9	7	10
70	13	9	13
80	15	10	16
90	16	12	20
100	17	16	25
110	18	20	29
120	19	24	34
130	20	28	40
140	21	33	46
150	23	38	52
160	26	42	58
170	27	49	66
180	28	56	74
190	29	62	82
200	30	69	90
210	31	77	98
220	32	83	107
230	33	92	115
240	34	101	127
250	34	109	138
260	36	118	149
270	36	128	162
280	37	138	173
290	38	148	186
300	38	156	200
310	39	168	213